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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,313

04/28/2006

Shinya Nagano

3273-0222PUS1

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EXAMINER

PIHONAK, SARAH

ART UNIT

PAPER NUMBER

1617

NOTIFICATION DATE

DELIVERY MODE

06/18/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/577,313	Applicant(s) NAGANO ET AL.	
	Examiner SARAH PIHONAK	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This application is a 371 (national stage application) of PCT/JP04/15882, filed on 10/20/2004.

Priority

This application was filed on 4/28/2006, and is a 371 of PCT/JP04/15882, filed on 10/20/2004. This application also claims foreign priority to the following applications: JP 2003-376049, filed on 11/5/2003, and JP 2003-383223, filed on 11/13/2003. Certified copies of the foreign priority applications have been received. The priority filing date acknowledged in the office action dated 11/10/2008 was 10/20/2004, as the foreign applications were not in English, and did not have an English translation provided. In the reply filed on 2/10/2009, English translations of both foreign applications were provided. As the foreign applications provide support to the instant claims, the priority date given is 11/5/2003, with U.S. filing date being 10/20/2004.

Response to Arguments

1. In the reply filed on 3/24/2009, the Applicants added new claims 2-6, and amended instant claim 1. As the new claims have support from the specification and do not represent new matter, entry of these claims is allowed.

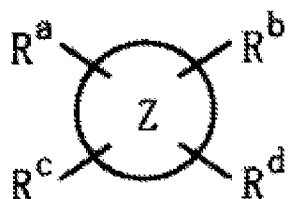
In the reply filed on 2/10/2009, the Applicants traversed the objection by the examiner regarding the foreign patent documents listed in the IDS filed on 4/28/2006. According to the examiner, the foreign patent documents failed to comply with 37 CFR 1.98(a), as these documents were not in English, did not have an English abstract, and

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were not accompanied by an English translation or an explanation of their relevance to the instant invention. The Applicants traversal to this objection was that these foreign patent documents had been cited in the English language International Search Report, along with their relevance to the instant invention. Therefore, the Applicants argued that the foreign patent documents did comply with 37 CFR 1.98(a). This argument has been fully considered and is found persuasive. All of the foreign patent documents have been considered for this office action.

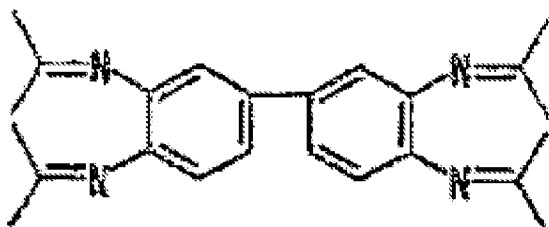
In the office action dated 11/10/2008, claim 1 had been rejected for obviousness-type double patenting over claims 1, 2, and 4 of the US 7,186,454 patent. On 2/10/2009, a terminal disclaimer was filed. The rejection of claim 1 for obviousness-type double patenting over claims 1, 2, and 4 of the US '454 patent is therefore withdrawn. However, upon reviewing the instant claims and related art, a new obviousness-type double patenting rejection is made of instant claims 1 and 5 over claims 1, 2, and 4 of the US 7,090,925 patent. This rejection will be explained in detail further in this action.

In the office action dated 11/10/2008, claim 1 had been rejected under 35 USC § 102(a) as being anticipated by Nagano et. al. (US PG Pub 2004/0175858). Instant claim 1 had cited a compound of formula (I), which is shown below:



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Where Z=mono or polycyclic aromatic ring; R^a, R^b, R^c, R^d= substituents of Z, and may be a protected or unprotected amino, mercapto, or hydroxyl group. Additionally, at least one of R^a, R^b, R^c, or R^d is an amino group protected by an alkylidene group. The compound elected by the Applicants was 3,3'-diaminobenzidine tetraiospropanoimine, which is shown below:



Nagano et. al. had also disclosed the same compound (p. 17, column 2, paragraph [0147]). Therefore, Nagano et. al. anticipated instant claim 1. However, in the reply filed on 2/10/2009, the Applicants submitted English translations of the foreign priority documents, which provide support to the instant claims. The priority date given to the instant claims is 11/5/2003, which was the filing date of the foreign priority document. Therefore, the reference of Nagano et. al. is no longer considered to be prior art. The rejection of instant claim 1 under 35 USC § 102(a) over Nagano et. al. is withdrawn. A new rejection of claims 1-4 under 35 USC 102(b) is made, which will be explained in detail further in the action.

The elected species, 3,3'-diaminobenzidine tetraiospropanoimine, has been found to be free of the prior art. Therefore, other species of formula (1) were examined for patentability.

A new rejection of claims 1 and 5 for obviousness-type double patenting is made in this action. Accordingly, this action is made NON-FINAL.

2. Claims 1-6 were examined.
3. Claims 1 and 5 were rejected.
4. Claims 2-4 and 6 are objected to.

Claim Rejections-Obviousness-Type Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

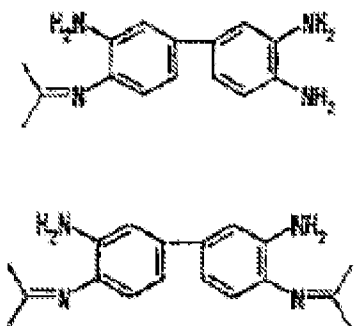
6. Claims 1 and 5 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, and 4 of U.S. Patent No.

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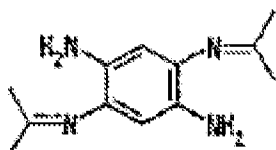
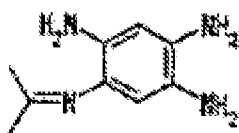
7,090,925. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims cite polyaromatic amine derivatives which are shared between both sets of claims.

7. Instant claim 1 cites a aromatic polyamine derivative of formula (1), in which Z=monocyclic or polycyclic aromatic ring; and substituents R^a , R^b , R^c , and R^d may be unprotected amino groups, in addition to unprotected or protected mercapto or hydroxyl groups, with the caveat that atleast one substituent consists of an amino-substituted aliphatic alkylidene group. Claims 1, 2, and 4 of the US '925 patent disclose a compound of formula (2), which has a core structure defined as Z, with four substituents: two unprotected amino groups, as well as R^1 and R^2 . Claim 1 defines Z as a monocyclic or polycyclic aromatic ring, and R^1 and R^2 as a mono-substituted amino group, a hydroxyl group, or a mercapto group. As the substituents R^1 and R^2 of formula (2) include amino-substituted aliphatic alkylidene groups, the instant claim and claims 1, 2, and 4 of the US '925 patent disclose the same compounds.

Instant claim 5 cites structures of compounds which are shown below:



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Claims 1, 2, and 4 of the US '925 patent disclose a compound of formula (2), in which Z=mono or polycyclic aromatic ring, with four substituents: two unprotected amino groups, as well as R¹ and R². R¹ and R² are substituents that can be unprotected amino groups or mono-substituted amine groups, which encompasses the amino substituted aliphatic alkylidene groups in the compounds of instant claim 5 that are listed above. While instant claim 5 and claims 1, 2, and 4 of the US '925 patent are not identical, both sets of claims cite species of compounds which are the same.

Claim Objections

8. Claims 2-4 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARAH PIHONAK whose telephone number is

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(571)270-7710. The examiner can normally be reached on Monday-Thursday 8:00 AM - 6:30 PM EST, with Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571)272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.P.

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1617

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